

# New York State Department of Transportation

## Yellow Flag NB23U4W018

By: Malav Shah

Flag Date: May 11, 2023

Superseding Information:

No Flags Superseded

### Structure Information

**BIN: 1065318**

**Feature Carried: 278I278IX2M23027**

**Feature Crossed: 6TH AVENUE**

**Orientation: 8 - NORTHWEST**

**Region: 11 - NEW YORK CITY**

**County: KINGS**

**Political Unit: City of NEW YORK**

**Approximate Year Built: 1962**

**Posted Load Matches Inventory : Yes**

**Bridge Load Posting (Tons) : Not Posted for Load**

**Primary Owner: New York State Department of Transportation**

**Primary Maintenance Responsibility: 12 - State - Subcontracted to another Party**

**Typical or Main Span Type: 3 - Steel, 02 - Stringer/Multi-Beam or Girder**

**This Bridge is not a Ramp**

**Number of Spans: 322**

### Verbal Notification Information

**Person Notified: Muhammad Mubeen**

**Date: May 11, 2023 2:00:00 PM**

**Of: NYSDOT Region 11**

### Signature Information

**Signature: Malav Shah, P.E. 106620-1**

**Date: June 08, 2023**

**Reviewed By: Robert Kemp**

**Date: June 08, 2023**

**Attachments: 8**

### Flagged Elements

Parent Element	Element	Total Quantity	Unit
<b>Span Number : 231</b>			
	PR831 - Steel Beam End	42	each
	113 - Steel Stringer	104	ft

### Flagged Condition Description

This Yellow Flag No. NB23U4W018 is a new flag.

Location: Span 231 Stringer S2 at Pier 230

Description:

Stringer S2 web right face exhibits a 2-1/2"H x 1-1/2"W corrosion hole in the upper web with 3/8" section loss (12-1/2"H x up to 4"W) around the corrosion hole in the upper web. Remaining height of the web exhibits 3/16" to 1/4" section loss (9-1/2"H x up to 2"W) adjacent to the connection angle. Connection angle on right face has up to 80% section loss on the full face with 40% section loss in 4 out of 4 rivet heads. Bottom flange angle on right side exhibits a 3-12"L x 2"W hole in the outstanding leg.

Stringer web left face exhibits 1/8" section loss over a small area of 2"H x 1-1/2"W in the upper web below the top flange angle. Connection angle on left face has up to 90% section loss on Full Height x up to Full Width, with 1" diameter hole in top of the connecting leg. Bottom flange angle on left side exhibits a 18"L x 2"W hole in the outstanding leg.

Refer to sketch for further details.

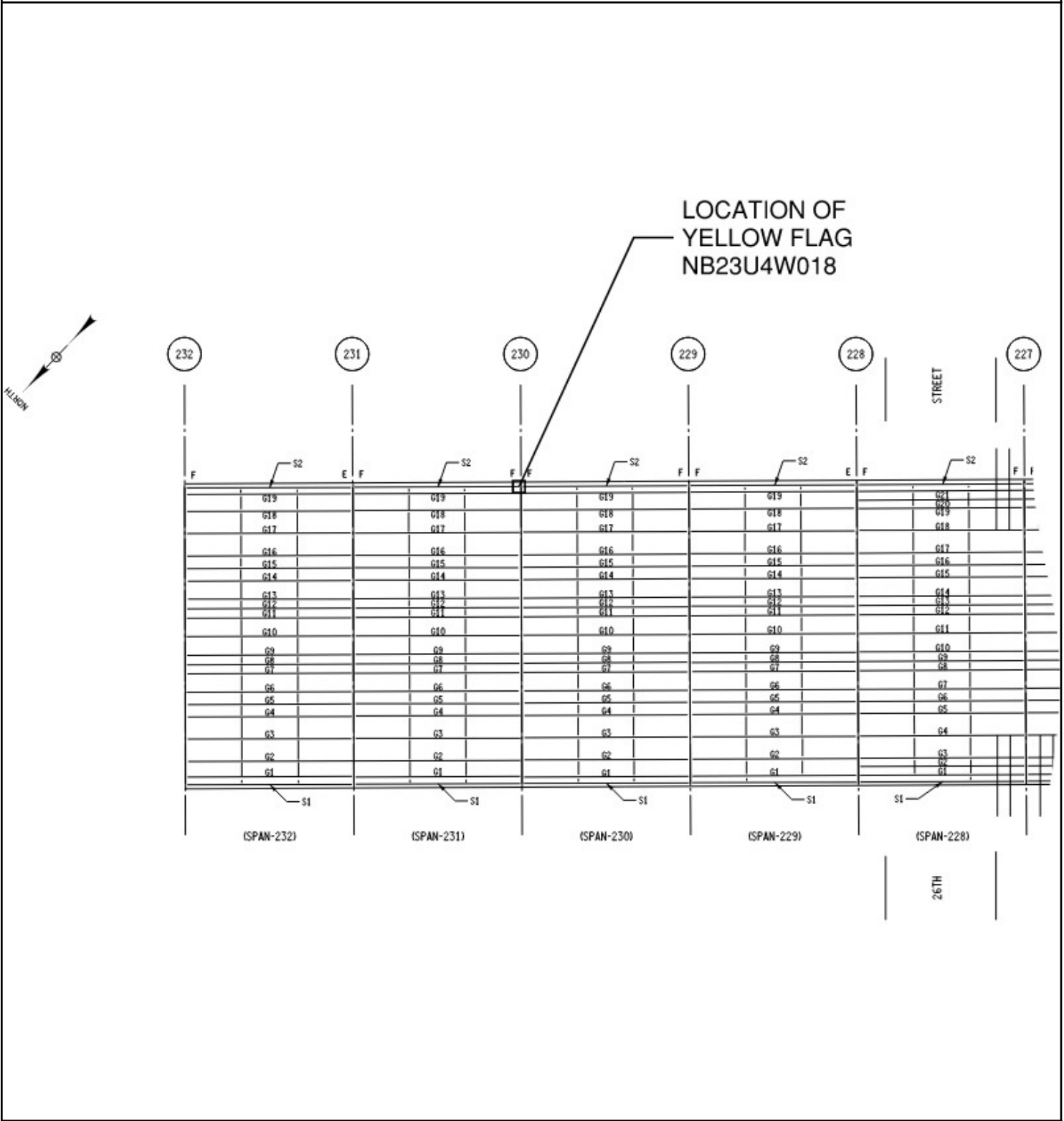
Notes:

1. Stringer S2 receives no direct live loading but supports the barrier/railing above on I278.
2. The adjacent Girder (left) G19, approximately 24" on center, receives direct live loading. Girder G19 has multiple holes and cracks in the connection angles on both sides at Pier 230, resulting into detachment of the girder web from the pier cap web. PIA Red Flag # NB23U4W017 is issued for this condition.
3. The flagged condition is located above the center lane on 3rd Avenue EB roadway and was accessed using 35 ft bucket truck with double left lane closure.
4. The previous 2021 Biennial report documented the above stringer S2 location with the following defect : Stringer S2 beam end left side bottom flange exhibits a 5" L x 2" W corrosion hole. The left side bottom flange angle exhibits 18' of knife edge corrosion with several corrosion holes.

Flag Photographs

Photo Number: 1

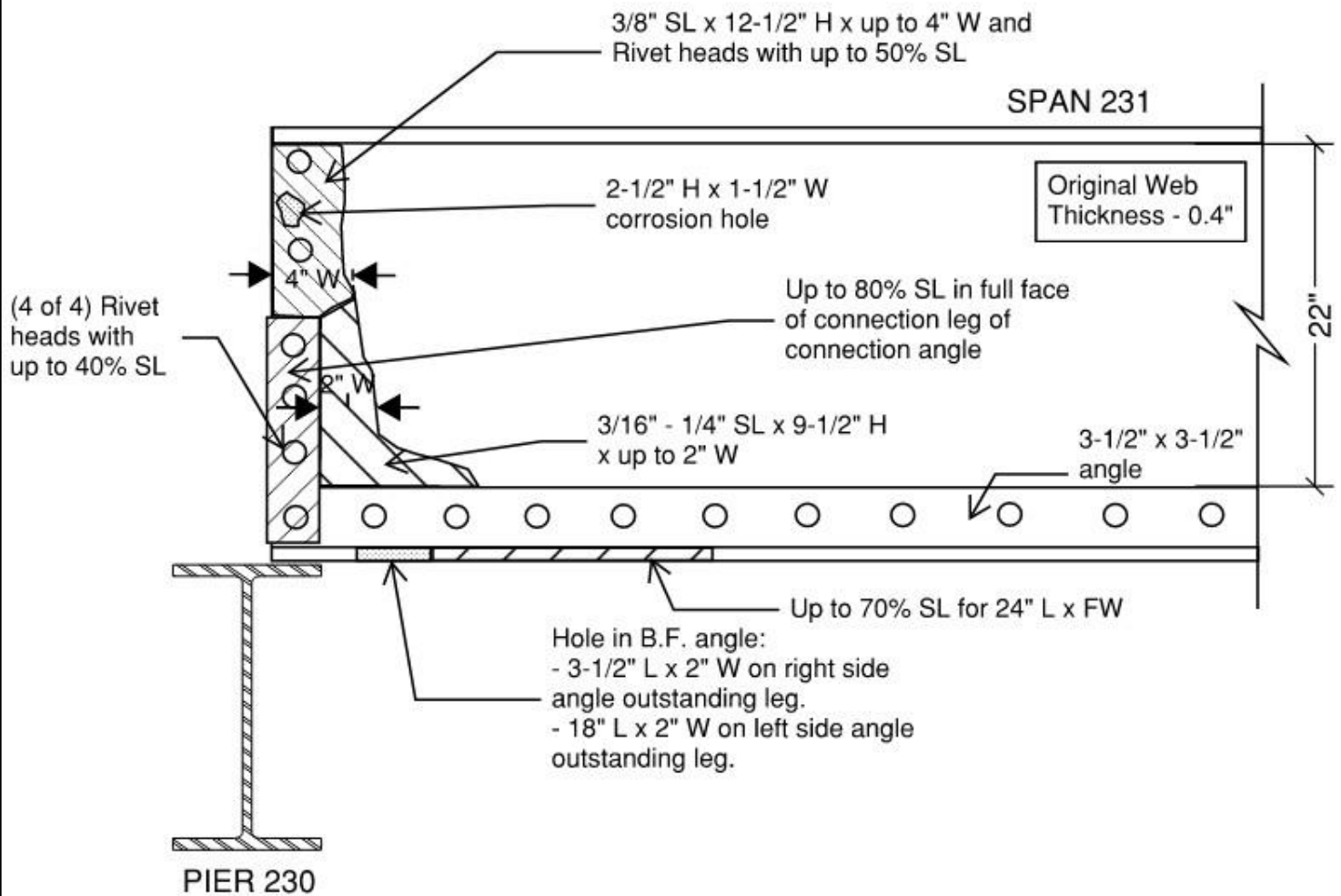
Photo Filename: NB23U4W018 LOCATION PLAN.JPG



Attachment Description: Flag Location Plan

Photo Number: 2

Photo Filename: NB23U4W018 CONDITION SKETCH.JPG

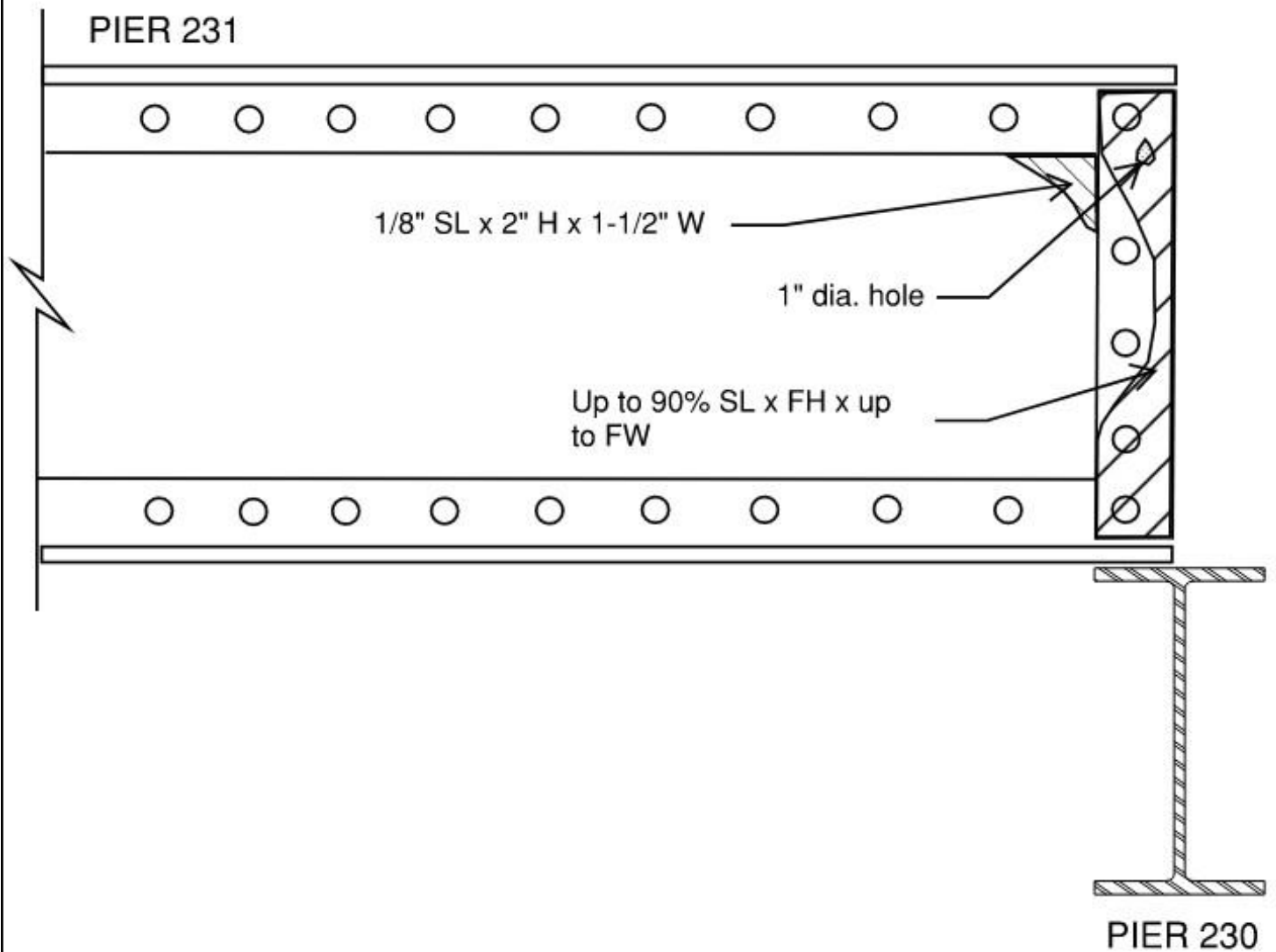


**SPAN 231, STRINGER S2 AT PIER 230**  
**(LOOKING LEFT)**  
**N.T.S**

*Attachment Description: Flag Condition Sketch*

Photo Number: 3

Photo Filename: NB23U4W018 CONDITION SKETCH 2.JPG



**SPAN 231, STRINGER S2 AT PIER 230**  
**(LOOKING RIGHT)**  
**N.T.S**

*Attachment Description: Flag Condition Sketch 2*

Photo Number: 4

Photo Filename: P5123118 (2).JPG

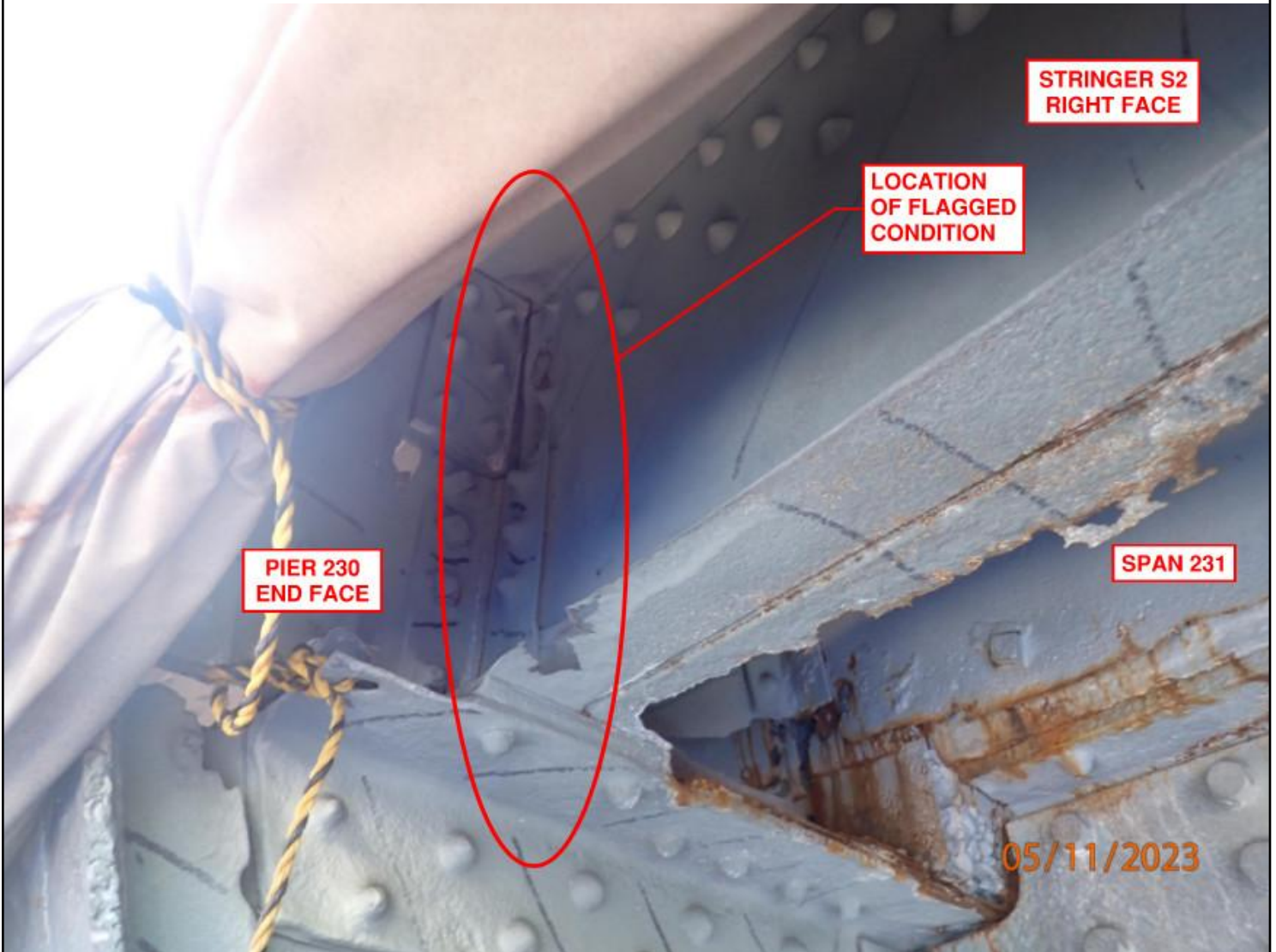


**Attachment Description: General View of Flag Location. Looking Begin-Up.**



Photo Number: 5

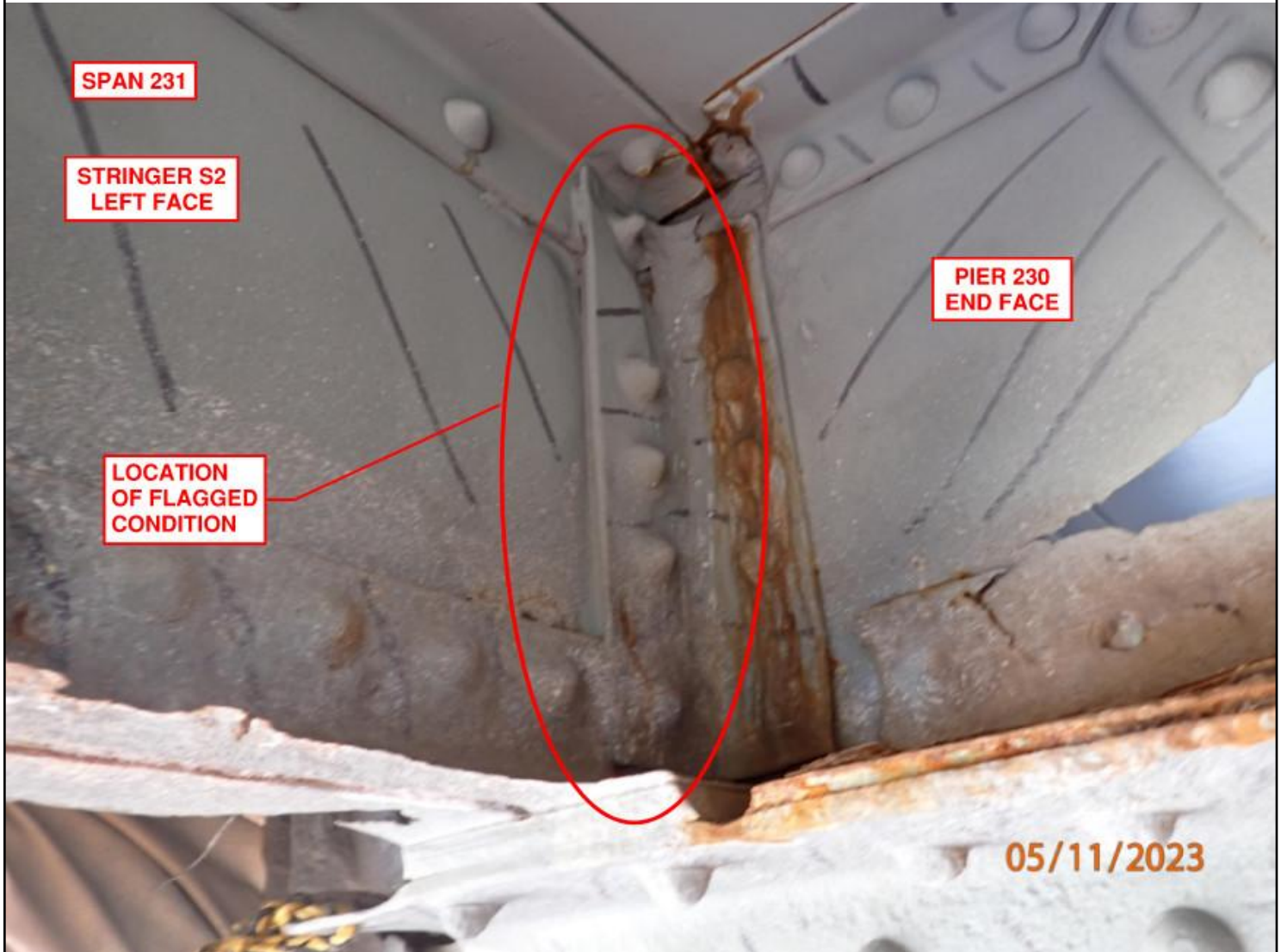
Photo Filename: P5113083.JPG



**Attachment Description:** General View of Flag Condition on right face of stringer web. Looking Begin-Left.

Photo Number: 6

Photo Filename: P5113090.JPG

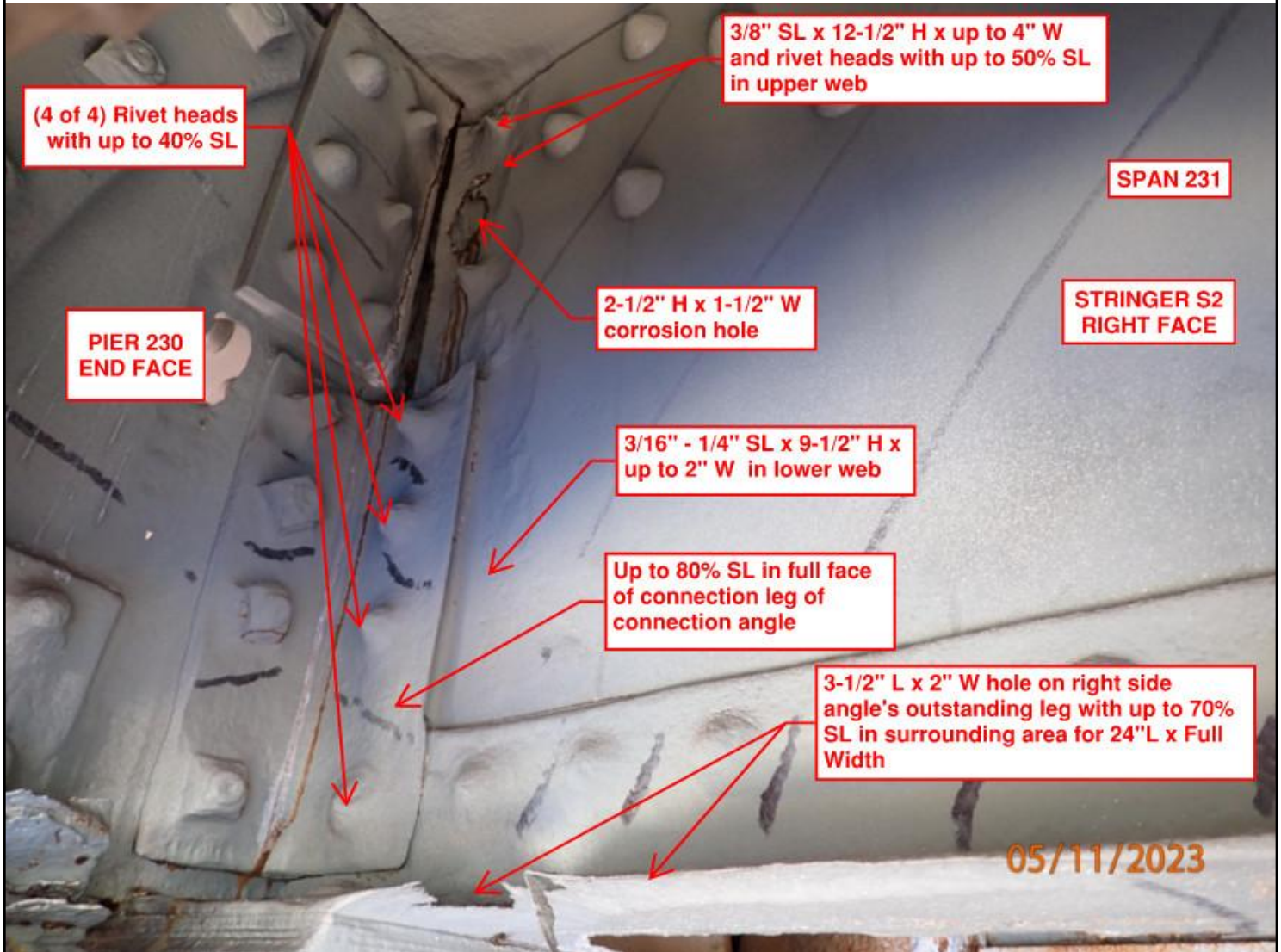


**Attachment Description:** General View of Flag Condition on left face of stringer web. Looking Begin-Right



Photo Number: 7

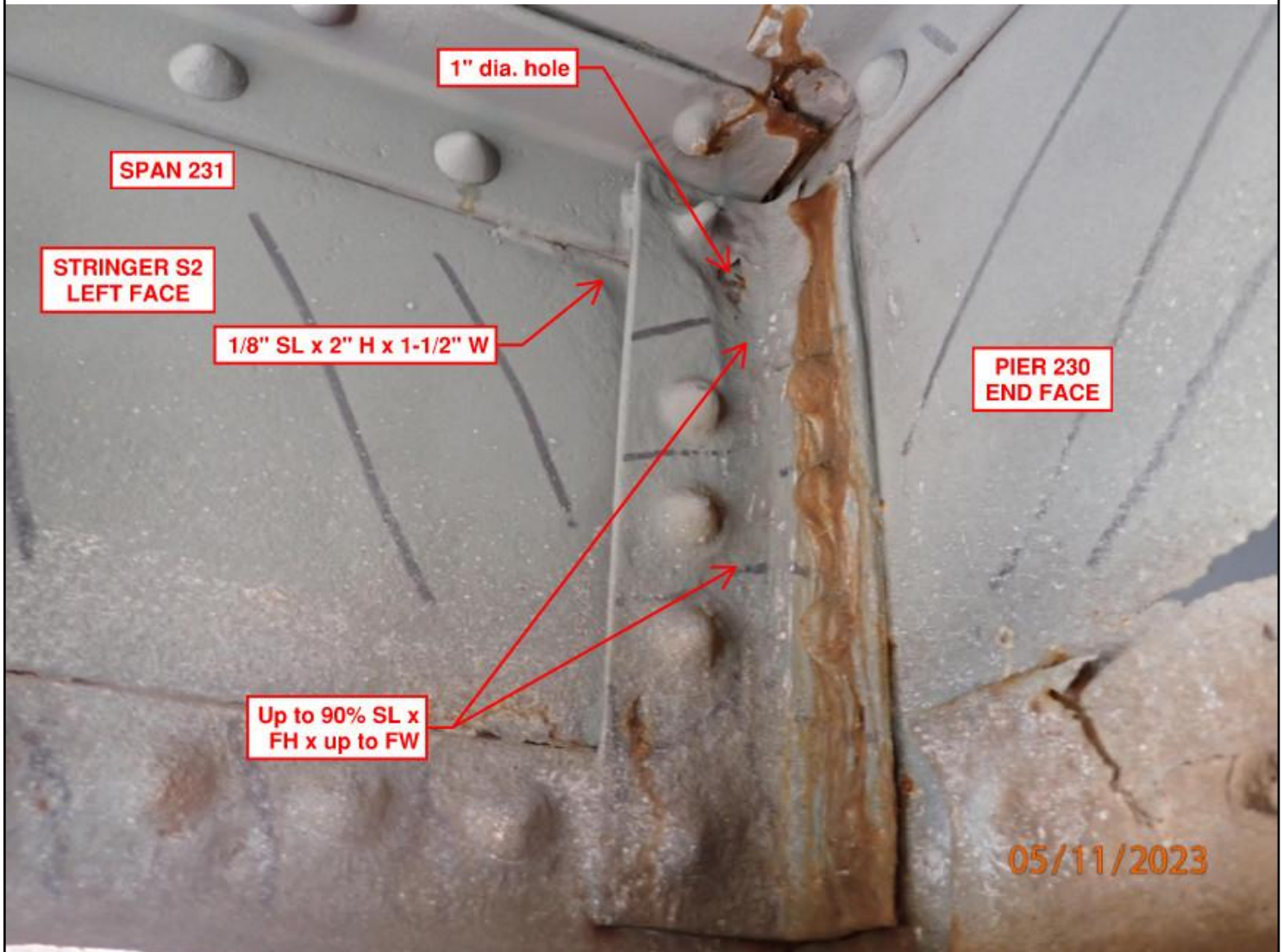
Photo Filename: P5113084.JPG



**Attachment Description:** S2 right face has a 2-1/2"H x 1-1/2"W corrosion hole in upper web with 3/8" SL (12-1/2"H x up to 4"W) around corrosion hole in upper web. Remaining height of the web exhibits 3/16" to 1/4" SL (9-1/2"H x up to 2"W). Connection angle on right face has up to 40% SL on full face. Bottom flange angle on right side exhibits a 3-12"L x 2"W hole in the outstanding leg. Looking Begin-Left

Photo Number: 8

Photo Filename: P5113091.JPG



**Attachment Description:** Stringer S2 web left face exhibits 1/8" section loss over a small area of 2"H x 1-1/2"W in upper web below top flange angle. Connection angle on left face has up to 90% section loss on FW x up to Full Width, with 1" diameter hole in top of the connecting leg. Bottom flange angle on left side exhibits a 18"L x 2"W hole in the outstanding leg. Looking Begin-Right